

AVEN ARLINGTON

B.S. Computer Engineering, cum laude
Texas Tech University, 2009-2013

Senior Software Developer with a decade of experience in all aspects of creating and maintaining professional quality software and tests for embedded devices.

WORK EXPERIENCE

National Instruments *A leader in test and measurement automation*

Senior Software Engineer

Jun 2013 – Dec 2023

Highlights

- Promoted four times over the course of 7 years.
- Fluent with NI hardware/software ecosystem: LabVIEW, DAQmx, CompactRIO, Linux, FPGA, RTOS, and more.
- Responsible for CI/CD pipelines, automation of large test suites, individual test automation, failure triage, root cause analysis, and debugging for entire families of embedded hardware devices.
- Prototype, plan, implement, and test software for both new and existing embedded hardware devices.
- Comfortable working with complex, multi-language systems comprised of both legacy and sustained code bases for use with networks of embedded test & measurement devices.

Accomplishments

- As a Scrum Master, facilitated daily collaboration among team members, focusing on continuous improvement and translating organizational goals into actionable features. Developed and enforced Kanban principles for work inflow and backlog management, ensuring throughput goals were met. Additionally, administered all Agile/Scrum processes, provided training to team members, and reported progress to leadership.
- Implemented “Shift Left” initiatives where failure modes and pain points are tested closer to, if not at, compile time for early detection and corrective actions.
- Reduced the overhead costs of software releases through the elimination of manual testing, creation of automated test systems, and implementation of continuous improvement/integration pipelines.
- Hardened test suites against intermittent failures using a combination of improvements, bug fixes, and the elimination of low-quality tests thus resulting in a 2x increase in release frequency.
- Improved developer productivity by reducing build times, from days to hours, thereby allowing developers to test multiple code changes per day.
- Developed driver software by writing test cases to defend against regression, refactoring legacy code to enable new feature injection, implementation of new features according to requirements, and finally writing additional tests to validate the new behavior.
- Create system level verification and validation tests to ensure acceptance, performance, and compatibility requirements are met, in addition to pre-release defect detection.

SKILLS

Languages: Rust, C/C++, Python, LabVIEW, C#

Frameworks: GoogleTest

Tools: Git, Microsoft Azure DevOps, Perforce, Jenkins

Protocols: CAN, I2C, SPI, RS-232/485

CONTACT

aven.arlington@gmail.com
<https://www.linkedin.com/in/aven-arlington>

(806) 928-1589
<https://github.com/aven-arlington>